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SUMMA, ADDITON & ASHE, P.A.
11610 NORTH COMMUNITY HOUSE ROAD
SUITE 200
CHARLOTTE, NC 28277

EXAMINER	
CONLON, MARISA	
ART UNIT	PAPER NUMBER
3643	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,048	MC FADDEN, JOHN	
	Examiner	Art Unit	
	MARISA CONLON	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/28/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims: "20; 21; 20; 21; 22; 23" have been renumbered in the order as presented by applicant, and thus are renumbered as --20; 21; 22; 23; 24; 25--.

Claim Rejections - 35 USC § 112, 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 provides for the use of a lamp, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant

is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 24 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Creighton (U.S. 1,968,072).

Regarding claim 1, Creighton discloses a lamp comprising: (i) an elongate watertight housing (#11) having first and second ends (see Fig. 1) and at least one sidewall (see Pg. 1, lines 96-97, specifying that the housing is cylindrical in form); (ii) at least one light source (#12) within the housing and arranged to emit light from the housing (Pg. 1, lines 93-96); (iii) a port (#33, 30) in the housing to allow ingress of water when the lamp is submerged in water (Pg. 2, lines 23-28); (iv) a heat-dissipating

element (#17-20, see Fig. 1; Pg. 1, line 110 to Pg. 2, line 3) having an elongate heat dissipating body (#17-19) extending into the housing (see Fig. 1) to dissipate heat generated by the light source (Pg. 1, lines 47-51; Pg. 2, lines 1-6), the body (#17-19) having defined therein an internally located conduit (#20, Fig. 1; see Pg. 1, line 110 to Pg. 2, line 3) which is in fluid communication with the port in a watertight arrangement so that when the lamp is submerged, water ingressing through the port flows internally into the heat dissipating body via the conduit so that the heat dissipating element is cooled by internally circulating water (Pg. 2, lines 30-39).

Regarding claim 2, Creighton further discloses a lamp wherein the heat-dissipating element (#17-20) terminates within the housing (see Fig. 1, illustrating that the heat-dissipating element terminates at wall, #17; see also Pg. 1, line 110- to Pg. 2, line 3).

Regarding claim 3, Creighton further discloses a lamp wherein the heat-dissipating element (#17-20) terminates within the housing (at wall, #17) and the conduit (#20) terminates in a blind end (see Fig. 1, illustrating that the conduit terminates at wall, #17; see also Pg. 1, line 110 to Pg. 2, line 3).

Regarding claim 4, Creighton further discloses a lamp wherein the conduit (#20) of the heat-dissipating element is in fluid communication with at least two ports (#33,

#34; see Fig. 2, illustrating multiple holes in the housing) in the housing so that water may enter or exit the heat-dissipating element through either port (Pg. 2, lines 30-39).

Regarding claim 5, Creighton further discloses a lamp wherein the heat-dissipating element (#17-20) is centered in said housing (see Fig. 1, illustrating that the heat-dissipating element is centered in a radial relationship with respect to the housing, #11).

Regarding claim 6, Creighton further discloses a lamp wherein the heat-dissipating element (#17-20) comprises an elongate hollow metal tube (see Pg. 1, lines 93-97, teaching that housing, #11, is metal and cylindrical in form; see Pg. 1, lines 106-110, teaching that the walls of the heat-dissipating element, #17-19, are carved out of housing, #11) in fluid communication with at least one port (#33) in the housing (Pg. 2, lines 30-39).

Regarding claim 7, Creighton further discloses a lamp wherein the at least one sidewall is an endless sidewall (Pg. 1, lines 96-97, specifying that housing, #11, is cylindrical in form, and therefore comprises an endless sidewall; see Figs. 1, 2).

Regarding claim 24, Creighton further discloses use of the lamp according to claim 1 (see Col. 1, lines 1-8) for the purpose of promoting growth of photosynthetic plants and organisms for feeding fish.

Regarding claim 25, Creighton further discloses a fish farm comprising a lamp, said lamp comprising (i) an elongate watertight housing (#11) having first and second ends (see Fig. 1)and at least one sidewall (see Pg. 1, lines 96-97, specifying that the housing is cylindrical in form); (ii) at least one light source (#12) within the housing and arranged to emit light from the housing (Pg. 1, lines 93-96); (iii) a port (#33, 30) in the housing to allow ingress of water when the lamp is submerged in water (Pg. 2, lines 23-28); (iv) a heat-dissipating element (#17-20, see Fig. 1; Pg. 1, line 110 to Pg. 2, line 3) having an elongate heat dissipating body (#17-19) extending into the housing (see Fig. 1) to dissipate heat generated by the light source (Pg. 1, lines 47-51; Pg. 2, lines 1-6), the body (#17-19) having defined therein an internally located conduit (#20, Fig. 1; see Pg. 1, line 110 to Pg. 2, line3) which is in fluid communication with the port in a watertight arrangement so that when the lamp is submerged, water ingressing through the port flows internally into the heat dissipating body via the conduit so that the heat dissipating element is cooled by internally circulating water (Pg. 2, lines 30-39).

5. Claims 1 and 8-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilcoxon (U.S. 2,839,673).

Regarding claim 1, Wilcoxon discloses a lamp comprising (i) an elongate watertight housing (#5) having first and second ends and at least one sidewall (see Fig. 1); (ii) at least one light source (#13) within the housing and arranged to emit light from the housing (Col. 1, lines 24-26; Col. 1, lines 47-65); (iii) a port (top of tube, #11) in the

housing to allow ingress of water when the lamp is submerged in water (Col. 1, lines 51-59; Col. 3, lines 59-61; Col. 4, lines 36-40); (iv) a heat-dissipating element (tube, #11) having an elongate heat dissipating body (tube, #11) extending into the housing to dissipate heat generated by the light source (Fig. 1; Col. 3, lines 59-61), the body having defined therein an internally located conduit (inside of tube, #11; see Fig. 1; Col. 4, lines 36-40) which is in fluid communication with the port in a watertight arrangement (Col. 2, lines 45-49) so that when the lamp is submerged, water ingressing through the port flows internally into the heat dissipating body via the conduit so that the heat dissipating element is cooled by internally circulating water (Col. 1, lines 47-65; Col. 3, lines 59-61; Col. 3, lines 67-73).

Regarding claim 8, Wilcoxon further discloses a lamp wherein the at least one sidewall (#9; Col. 2, lines 14-20; Fig. 1)) of the elongated watertight housing (#5) is constructed of transparent material (Col. 1, lines 62-65; Col. 3, lines 23-25).

Regarding claim 9, Wilcoxon further discloses a lamp wherein the housing (#5) comprises a unitary body (#5) which has a first open end (upper bore portion of hole, #29, see Fig. 1; Col. 2, lines 37-39); and a closure for the open end (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6).

Regarding claim 10, Wilcoxon further discloses a lamp wherein the housing (#5) comprises a unitary body (#5) which has first and second open ends (upper and lower

bore portions of hole, #29; see Col. 2, lines 37-39); and a closure for each open end (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6).

Regarding claim 11, Wilcoxon further discloses a lamp wherein the port (top of tube, #11) is provided in a or each closure (Col. 2, lines 45-49; see Fig. 1).

Regarding claim 12, Wilcoxon further discloses a lamp wherein the housing (#5) comprises a unitary body (#5) which has a first open end (upper bore portion of hole, #29); and a closure for the open end (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6) and wherein a or each closure carries at least one electrical connector (#15, Figs. 1, 6) for connecting an electrical cable from an external power source to the light (Col. 2, lines 60-62).

Regarding claim 13, Wilcoxon further discloses a lamp wherein the housing (#5) comprises a unitary body which has first and second open ends (upper and lower bore portions of hole, #29; see Col. 2, lines 37-39); and a closure for each open end (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6) and wherein a or each closure carries at least one electrical connector (#15, Figs. 1, 6) for connecting an electrical cable from an external power source to the light (Col. 2, lines 60-62).

Regarding claim 14, Wilcoxon further discloses a lamp wherein the housing (#5) comprises a unitary body (#5) which has a first open end (upper bore of bore, #29); and a closure for the open end (Col. 2, lines 45-49, teaching an o-ring for each open end;

see also Claim 6) and wherein a or each closure is removable from the housing to allow access to the light source within said housing (Col. 1, lines 37-41).

Regarding claim 15, Wilcoxon further discloses a lamp wherein the housing (#5) comprises: a unitary body (#5) which has first and second open ends (upper and lower bore portions of hole, #29; see Col. 2, lines 37-39); and a closure for each open end (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6) and wherein a or each closure is removable from the housing to allow access to the light source within said housing (Col. 1, lines 37-41).

Regarding claim 16, Wilcoxon further discloses a lamp wherein the closure at the base of the elongate watertight housing comprises a mounting base (Col. 2, lines 45-49, teaching a resilient gasket-type o-ring for each open end).

Regarding claim 17, Wilcoxon further teaches a lamp wherein the closure at the base of the elongate watertight housing (Col. 2, lines 45-49, teaching an o-ring for each open end; see also Claim 6) comprises a mounting base wherein said mounting base has internal and external sides and the lamp can stand on the external side (Col. 2, lines 45-49, teaching a resilient gasket-type o-ring for each open end, and thus the lamp is capable of standing on the external side thereof).

Regarding claim 18, Wilcoxon further teaches a lamp wherein the light source is mounted proximate to the heat-dissipating element (see Fig. 1, illustrating that light source (#13) is mounted proximate to heat-dissipating element (#11)).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creighton (U.S. 1,968,072) in view of Poppenheimer (U.S. 4,574,337).

Regarding claim 19, Creighton teaches all of the structural elements as mentioned in claim 1 above, but does not explicitly teach a lamp wherein the light source is connected to the heat-dissipating element by means of a heat conductive connector.

However, Poppenheimer teaches a lamp wherein the light source (#34) is connected to the heat-dissipating element (#10, 12, 18) by means of a heat conductive connector (#56, Fig. 2; see Col. 3, lines 4-17, teaching that the light source is connected to wall (#18) of the heat-dissipating element via copper wool (#56)).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the lamp of Creighton to further include the heat conductive connector, as taught by Poppenheimer, in order to more efficiently transfer heat from the light source to the heat-dissipating element (see Poppenheimer at Col. 3, lines 11-14).

Regarding claim 20, Creighton teaches all of the structural elements as mentioned in claim 1 above, but does not explicitly teach a lamp wherein the light source is connected to the heat-dissipating element by means of a heat conductive connector and wherein the heat conductive connector is a metal conductor.

However, Poppenheimer teaches a lamp wherein the light source (#34) is connected to the heat-dissipating element (#10, 12, 18) by means of a heat conductive connector and wherein the heat conductive connector is a metal connector (#56, Fig. 2; see Col. 3, lines 4-17, teaching that the light source is connected to wall (#18) of the heat-dissipating element via copper wool (#56)).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the lamp of Creighton to further include the metal heat conductive connector, as taught by Poppenheimer, in order to more efficiently transfer heat from the light source to the heat-dissipating element (see Poppenheimer at Col. 3, lines 11-14).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Creighton (U.S. 1,968,072) in view of Olsson et al. (U.S. 4,683,523).

Creighton teaches all of the structural elements as mentioned in claim 1 above, but does not explicitly teach a lamp wherein the light source comprises at least one halogen bulb.

However, Olsson et al. teaches a lamp wherein the light source comprises at least one halogen bulb (Col. 2, lines 66-67, teaching a quartz-halogen bulb).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the lamp of Creighton to further include the halogen bulb, as taught by Olsson et al., in order to provide a high degree of illumination for a given amount of electric power (see Olsson et al. at Col. 2, lines 66-67).

9. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcoxon (U.S. 2,839,673) in view of Patrick et al. (U.S. 6,203,170).

Regarding claim 22, Wilcoxon teaches all of the structural elements as mentioned in claim 1 above, but does not explicitly teach a lamp wherein a ballast weight is contained inside the watertight housing.

However, Patrick et al. teaches a lamp wherein a ballast weight (#60) is contained inside the watertight housing (see Fig. 1, illustrating battery (#60) inside housing (#12); see Col. 4, line 64 to Col. 5, line 6, teaching that battery (#60) is functioning as a ballast weight; see also Col. 4, lines 14-17, teaching that housing (#12) is watertight).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the lamp of Wilcoxon to further include the ballast weight, as taught by Patrick et al., in order to maintain the lamp in a vertically oriented position (see Patrick et al. at Col. 4, line 64 to Col. 5, line 6; see also Wilcoxon at Col. 3, lines 58-59, teaching that it is preferable to operate the lamp in a vertical orientation).

Regarding claim 23, Wilcoxon teaches all of the structural elements as mentioned in claim 1 above, but does not explicitly teach a lamp wherein a ballast weight is contained inside the watertight housing and wherein the ballast weight is arranged on or in the mounting base.

However, Patrick et al. teaches a lamp wherein a ballast weight (#60) is contained inside the watertight housing (see Fig. 1, illustrating battery (#60) inside housing (#12); see Col. 4, line 64 to Col. 5, line 6, teaching that battery (#60) is functioning as a ballast weight; see also Col. 4, lines 14-17, teaching that housing (#12) is watertight) and wherein the ballast weight is arranged on or in the mounting base (#20; see Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the lamp of Wilcoxon to further include the ballast weight, as taught by Patrick et al., in order to maintain the lamp in a vertically oriented position (see Patrick et al. at Col. 4, line 64 to Col. 5, line 6; see also Wilcoxon at Col. 3, lines 58-59, teaching that it is preferable to operate the lamp in a vertical orientation).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Archer (U.S. 2003/0048632); Love (U.S. 6,616,291); Giudice et

al. (U.S. 3,235,835); Mori (U.S. 4,984,862); Walker (U.S. 4,809,630); Larrimore (U.S. 4,219,871); Galavan (U.S. 1,389,132); Wilson (U.S. 1,457,646); Miller (U.S. 3,474,243).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARISA CONLON whose telephone number is (571)270-5739. The examiner can normally be reached on Monday-Friday 8:30-6:00, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571)272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. C./
Patent Examiner, Art Unit 3643

/Peter M. Poon/
Supervisory Patent Examiner, Art Unit 3643